

Abstract

Fuel Cell Manifold Seal with Rigid Inner Layer

A multi-layer seal system for a manifold (10) of a proton exchange membrane fuel cell includes a silicone rubber filler layer (22) between endplates (9) to compensate for the uneven edges of cell elements, an elastomer gasket (15) disposed within a groove (24) in the contact surfaces of a manifold (10), and a rigid dielectric strip (40) coplanar with the contact surfaces (17) of the endplates (9) interposed between the silicone rubber filler layer (22) and the gasket (15). The rigid dielectric strip (40) may be either angled (40a) for a corner seal, or flat (40b).